

WHAT IS CLAIMED IS:

1. A portable electronic apparatus comprising:  
detecting means for detecting a high-frequency  
signal received by an antenna and for outputting the  
detected signal;

sampling means for sampling said detected signal  
with regard to a frequency higher than a clock frequency  
of said detected signal and for outputting sampled  
results; and

decoding means for decoding data transmitted by  
said high-frequency signal by use of a signal level  
distribution of said detected signal derived from said  
sampled results.

2. A portable electronic apparatus according to  
claim 1, wherein said sampling means acquires said  
sampled results by subjecting said detected signal to  
binarization for sampling.

3. An IC card for receiving data transmitted by a  
reader/writer and for outputting data from an internal  
memory in return, said IC card comprising:

detecting means for detecting a high-frequency  
signal induced on an antenna and for outputting the  
detected signal;

sampling means for sampling said detected signal

with regard to a frequency higher than a clock frequency of said detected signal and for outputting sampled results; and

decoding means for decoding the received data by use of a signal level distribution of said detected signal derived from said sampled results.

4. An IC card according to claim 3, wherein said sampling means acquires said sampled results by subjecting said detected signal to binarization for sampling.

5. A reader/writer for receiving data transmitted by an IC card, said reader/writer comprising:

detecting means for detecting a high-frequency signal induced on an antenna and for outputting the detected signal;

sampling means for sampling said detected signal with regard to a frequency higher than a clock frequency of said detected signal and for outputting sampled results; and

decoding means for decoding said data by use of a signal level distribution of said detected signal derived from said sampled results.

6. A reader/writer according to claim 5, wherein said sampling means acquires said sampled results by

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subjecting said detected signal to binarization for sampling.

7. A portable electronic apparatus comprising:  
detecting means for detecting a high-frequency signal received by an antenna and for outputting the detected signal;

clock regenerating means for regenerating a clock signal from said detected signal;

correlation value detecting means for detecting a correlation value representing sameness between said clock signal and said detected signal; and

decoding means for decoding data transmitted by said high-frequency signal in accordance with said correlation value.

8. A portable electronic apparatus according to claim 7, wherein said correlation value detecting means detects said correlation value by subjecting said detected signal to binarization.

9. An IC card for receiving data transmitted by a reader/writer and for outputting data from an internal memory in return, said IC card comprising:

detecting means for detecting a high-frequency signal induced on an antenna and for outputting the detected signal;

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clock regenerating means for regenerating a clock signal from said detected signal;

correlation value detecting means for detecting a correlation value representing sameness between said clock signal and said detected signal; and

decoding means for decoding data transmitted by said high-frequency signal in accordance with said correlation value.

10. An IC card according to claim 9, wherein said correlation value detecting means detects said correlation value by subjecting said detected signal to binarization.

11. A reader/writer <sup>B</sup> for receiving data transmitted by an IC card, said reader/writer comprising:

detecting means for detecting a high-frequency signal induced on an antenna and for outputting the detected signal;

clock regenerating means for regenerating a clock signal from said detected signal;

correlation value detecting means for detecting a correlation value representing sameness between said clock signal and said detected signal; and

decoding means for decoding data transmitted by said high-frequency signal in accordance with said

correlation value.

12. A reader/writer according to claim 11, wherein  
said correlation value ~~detecting~~ means detects said  
correlation value by subjecting said detected signal to  
binarization.

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